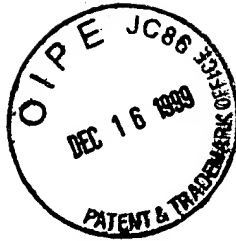


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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
: NAOTO ABE ) Examiner: Unassigned  
: Application No.: 09/248,980 ) Group Art Unit: 2711  
: Filed: February 12, 1999 )  
: For: IMAGE FORMING APPARATUS, )  
: ELECTRON BEAM APPARATUS, :  
: MODULATION CIRCUIT, AND )  
: IMAGE-FORMING APPARATUS : December 16, 1999  
: DRIVING METHOD )

Assistant Commissioner for Patents  
Washington, D.C. 20231

SECOND INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under  
37 CFR 1.56 and in accordance with the practice under  
37 CFR 1.97 and 1.98, the Examiner's attention is directed to  
the documents listed on the enclosed Form PTO-1449. Copies  
of the listed documents are enclosed.

#### FEE STATEMENT

Since the present Information Disclosure Statement is being submitted prior to the mailing of a first official action on the merits, and/or since the documents cited herein were cited in a foreign counterpart application not more than three months ago, no fee is believed due.

#### STATEMENT UNDER 37 CFR 1.97(e)

The documents cited in this Information Disclosure Statement were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing date of this Information Disclosure Statement.

#### REMARKS

The listed documents were cited in a Japanese counterpart foreign application. A copy of a Japanese Official Action, which is dated September 17, 1999, together with copies of the cited documents, are enclosed herewith. English Abstracts for the JP '493, '421, '277, '495, '526 and '920 documents are enclosed as a concise English language statement of relevance for the Examiner's consideration.

An English translation or abstract of the JP '889 document is not readily available. As understood, however, this document may be relevant for discussing a driving circuit for a liquid crystal display apparatus. The driving circuit has a tone signal generator, and the tone signal generator generates a tone signal having a pulse-width corresponding to tone data for every scanning period, based on a clock signal. The pulse-width of the tone signal is changed to have a non-linear relationship with the tone data by changing the period of the clock signal. As shown in Fig. 3(a), the pulse-width of the tone signal corresponding to the tone data having a lower level becomes longer, in order to express the tone in a lower level of the tone data. In Fig. 3(a), an abscissa shows a level of the tone data and a vertical coordinate shows a pulse width of the tone signal.

#### CONCLUSION

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned, indicating that such information has been considered.

Applicant's undersigned attorney may be reached in our Washington office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
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